

To: Butts, Sally[sbutts@blm.gov]
Cc: Miller, Ann[ann_miller@ios.doi.gov]; Simon, Benjamin[benjamin_simon@ios.doi.gov]; Nikki Moore[nmoore@blm.gov]; Fisher, Timothy[tjfisher@blm.gov]
From: Wootton, Rachel
Sent: 2017-07-14T17:47:11-04:00
Importance: Normal
Subject: Re: BLM economic snapshots
Received: 2017-07-14T17:50:09-04:00
Official Economic Contributions Workbook July Update.xlsx

Hi Ann,
Sorry for the delay. Please see the attached spreadsheet and let us know if you have any questions.

Have a great weekend, all!

Best,

Rachel

--
Rachel Wootton
Planning and Environmental Specialist
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On Fri, Jul 14, 2017 at 12:52 PM, Butts, Sally <sbutts@blm.gov> wrote:

Sure, we're glad to meet and discuss BLM visitation data whenever you'd like.
Thanks for all of the good questions, Sally

On Fri, Jul 14, 2017 at 12:47 PM, Miller, Ann <ann_miller@ios.doi.gov> wrote:

Hi Sally,
Thanks for all of this information. It is very helpful. Aside from the visitation for the purposes of the National Monuments review (which, with your response, I think we have enough information on at this point), it might be helpful to meet sometime in the future to learn more about the BLM visitation data. We can reach out later on to try to set something up.

Thanks again!
Ann

On Thu, Jul 13, 2017 at 6:35 PM, Butts, Sally <sbutts@blm.gov> wrote:

One more thing, we'll send the updated "official" spreadsheet tomorrow.
Thanks for your patience, Sally

On Thu, Jul 13, 2017 at 6:24 PM, Butts, Sally <sbutts@blm.gov> wrote:

Hi Ann,

Thanks for your good questions and sorry for the detailed reply.

Visitor data is imprecise considering the collection methods and especially when dealing with co-managed and new units.

For Sand to Snow National Monument, it is a relatively new designation and the local office has not been able to create an 'office code' assigned to track and report visitation within RMIS (BLM's Recreation Information Management System) for the area. Since RMIS Reports 0 that is what our economic snapshot shows. Within the data call response, the BLM provided visitation tracked for two recreation sites to provide a metric, even though it doesn't show all of the Monument. The response from the data call is copied below:

The BLM uses the Recreation Management Information System (RMIS) to report visitor use. Full reporting for annual fiscal year 2017 visitation will not be available until the end of September 2017. Numbers from two visitor contact areas, Big Morongo Canyon and Whitewater Preserve, are available and is provided under headings iv and vi below.

iii. While specific visitation information to the Sand to Snow National Monument is not available through RMIS at this time, the Palm Springs South Coast Field Office confirms requests for overnight camping at the Whitewater Preserve area have increased by 12 % since designation. Visitation to the Black Lava Buttes unit of the monument increased by 15% since designation.

iv. The Big Morongo Canyon unit of the S2SNM saw a slight increase in visitation since Monument designation than in previous years. Included below are visitor numbers from the Big Morongo Canyon unit, numbers of which are determined through the use of a traffic counter at their main entrance:

2016 - 66,675 visitors

2017 - 45,000 visitors (partial 10/01/2016 to 05/15/2017)

There's a good argument that our economic snapshot could include the above visitor data but we chose to use the RMIS system to be consistent, imperfect as it is. In later years, we'll be able to update the RMIS data and update the economic information.

For Craters of the Moon National Monument the National Park Service provided the information in the data call. The BLM's only national data collection system for visitation with the BLM is RMIS. I have attached the 2016 RMIS report for your review (Visitation Data Craters of the Moon.pdf). For the BLM's economic analysis we reported the information that we have available in our system.

Regarding a definitive visitation number, it is difficult to answer. Federal land managers are continually working on ways to improve our visitation reporting. It is a complex system and there are so many factors that influence visitation and collection, not to mention each site being different. We collect the most complete information we can, but our visitation information is always an educated estimate.

Rachel and I would be happy to chat with you over the phone or come over to MIB and perhaps we could include some of our recreation staff who manage RMIS if that's helpful.

Have a nice evening, Sally

On Thu, Jul 13, 2017 at 5:16 PM, Miller, Ann <ann_miller@ios.doi.gov> wrote:

Hi Rachel and Sally,
I've taken a second look at the visitation data we received for the data call for the various BLM-managed monuments and compared it to this updated spreadsheet that was sent today. There are a number of monuments where the visitation data provided in the data call responses/documentation don't match the visitation data in the spreadsheet. Some difference are small but some are really large. Craters of the Moon FY16 visitation is 3,654 in the spreadsheet and 255,436 in the data call response (I know this one is no longer "under review" but I still want to make sure the information we have prepared for it is accurate). Sand to Snow has visitation levels of zero for all three years in the spreadsheet but the data call response provided visitation estimates for FY13-16. In the cases where there are differences, do you know why these discrepancies exist and which source should be viewed as the "definitive" source? I'm happy to have another phone call tomorrow or next week if that would be easier.

Thanks again for all of your help!

Ann

On Thu, Jul 13, 2017 at 2:56 PM, Wootton, Rachel <rwootton@blm.gov> wrote:

Hi Ann,

No problem at all. I just found that document and will update it! I'll send it to you as soon as possible this afternoon!

Best,

Rachel

--

Rachel Wootton

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On Thu, Jul 13, 2017 at 2:46 PM, Miller, Ann <ann_miller@ios.doi.gov> wrote:

Thanks Rachel, and also thanks for taking the time to explain the issue to me today. The Excel file we initially received was the one titled "Official Workbook Economic Contributions of National Monuments and NCAs.xlsx". Do you have a version of this with the updated visitation data? If so, it would be extremely helpful to have that.

Thanks!

Ann

On Thu, Jul 13, 2017 at 2:05 PM, Wootton, Rachel <rwootton@blm.gov> wrote:

Hi Anne,

Thank you for your email and chatting with us over the phone. As discussed, I've included the updated spreadsheet. This information was used to create the updated economic snapshots on the drive. FY16 visitation information has not changed. Feel free to let us know if you all need additional information or would like it in a different format. I am not sure what spreadsheet you all received initially, but we could certainly put it in that format if need.

Please let us know if you have any questions and thanks again!

Best,

Rachel

--

Rachel Wootton
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On Thu, Jul 13, 2017 at 1:15 PM, Miller, Ann <ann_miller@ios.doi.gov> wrote:

Hi Sally,

I understand that the economic snapshots in the google drive for the BLM monuments under review were updated with revisions to the FY14 and FY15 visitor data. I believe we have the underlying source data for the visitation levels (this analysis of the economic contributions of National Monuments and NCAs had been shared with us separately) and in comparing it to the updated snapshots, I found a handful of monuments where the data presented in the snapshots do not match the underlying data. I confirmed that it is unlikely the that underlying source data has changed since it was shared with us so I think it may be worth checking that the data in the economic snapshots is correct. The issue I found is consistent across a handful of monuments, and it is that the FY15 visitation numbers are being presented in the FY14 box of the snapshot and the numbers being presented in the FY15 box of the snapshot are another number (I can't match it up with anything in the source data we were given). The snapshots that I found this issue with are:

- Canyons of the Ancients
- Carrizo Plain
- Craters of the Moon
- Upper Missouri River Breaks
- Cascade-Siskiyou
- Grand Staircase-Escalante

Thanks

Ann

--

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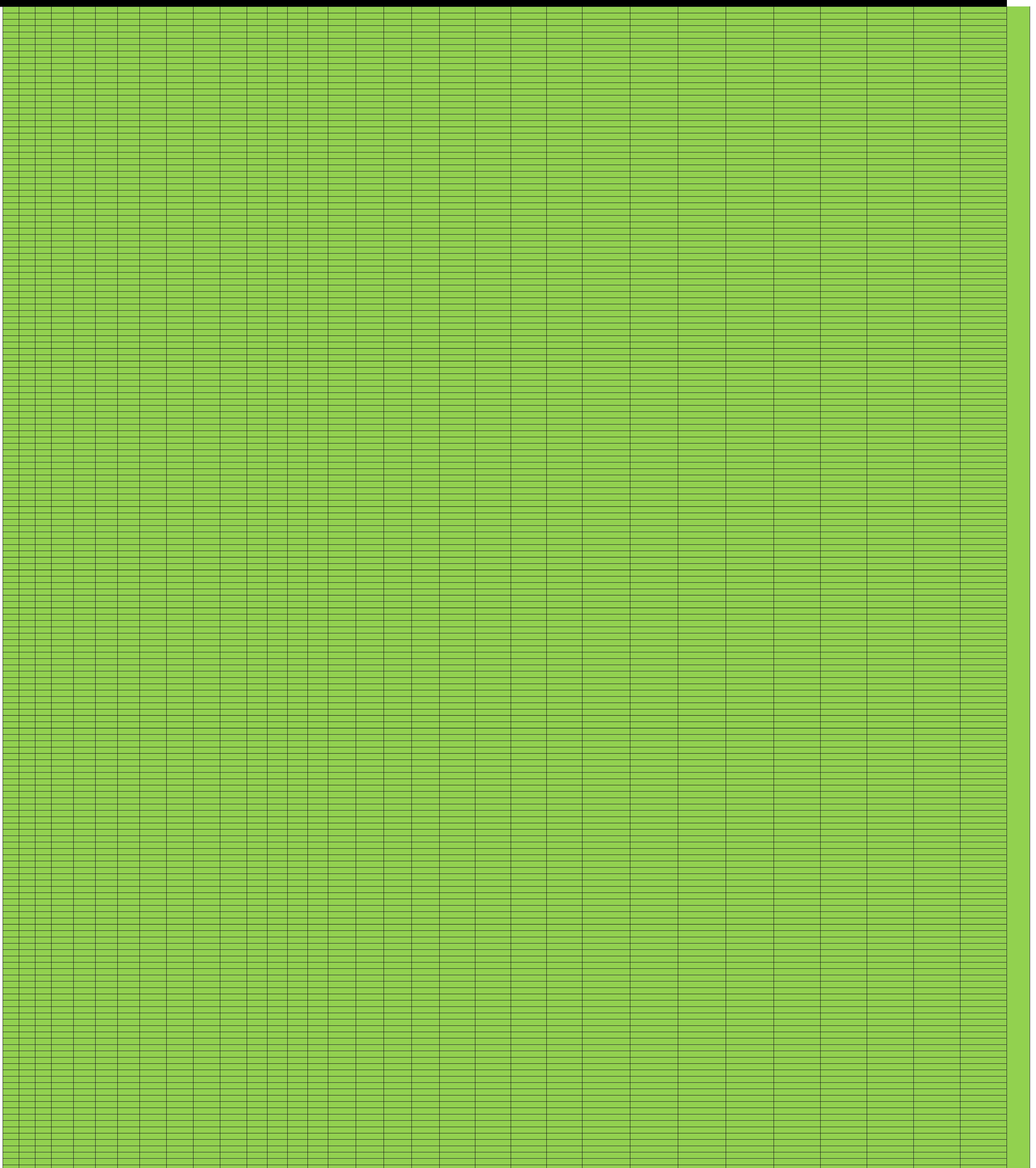
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This spreadsheet contains data to generate a report on the economic contributions of visitors to National Monuments and NCAs (excluding the most recently designated units of Bears Ears and Gold Butte). There are many hidden tabs which contain the calculations, but the only thing that needs to be inputted into this sheet is visitation data from each monument and NCA for the fiscal years 2017 and 2018. These should be entered into the "Visits" tab. For this analysis, I have used the number of "visits" (not visitor days) reported in RMIS for the office or RMA associated with the unit. These are found in report #23c in RMIS. The results will autofill in the "Economic Contributions" tab. Displayed in this tab are four columns of results for each fiscal year 2014-2018: employment, labor income, value added and output. These are defined as follows:

Employment the annual average of monthly jobs, both part-time and full-time. One part- or full-time job lasting twelve months is equivalent to two part- or full-time jobs lasting six months. Note that these jobs are those supported by visitor spending, not necessarily jobs "created" by the unit. Some of the reported jobs would still exist without tourism generated from the National Conservation Lands unit. Additionally, since this analysis only tracks visitor spending on trip-related goods and services, it does not directly calculate jobs associated with monument management. For the most part, BLM jobs are distinct from other jobs supported by visitation measured in an IMPLAN analysis.

Labor Income all forms of employment income, including wages, benefits, and proprietor income. Labor income represents a portion the amount reported for value added.

Value Added the contribution of visitor spending to the Gross Domestic Product (GDP) of a regional economy. Value added is equal to the difference between the sale price of all goods sold and the production value of the goods. In other words, if a consumer spent \$100 at a motel and the operational and material expenses of the business to provide that room were \$40, then \$60 of value is added to the economy.

Output the total production value of goods and services supported by visitor spending. It is the sum of consumer purchases, exports, and intermediate sales between businesses.

About the Results

The results in the "Economic Contributions" tab are based on several data sources. First, the amount of visitation is directly related to the amount of economic contributions. Higher visitation means a greater amount of spending in the region and thus a greater amount of economic activity supported by the unit. Visitation estimates are reported by units and taken from BLM's Recreation Management Information System (RMIS). The amount of spending by visitors is based on surveys from the National Park Service's Visitor Services Project (VSP). Spending profiles are reported from these surveys for local, nonlocal, onsite camping, offsite camping, and offsite lodging visitors per day for day visitors and per night for overnight visits. In order to estimate the proportion of visitors that fall into each category, each National Monument or NCA was matched up with a National Park Service site that has either been surveyed or has used a generic profile derived from the many surveys completed thus far as part of the VSP. The final estimated visitor spending at each site was multiplied by employment, labor income, value added and output multipliers from an input-output economic modeling software called IMPLAN. IMPLAN uses data from the Bureau of Economic Analysis and other sources to generate a complex accounting matrix that shows the linkages between over 500 different sectors in regional economies. In this analysis, a model for each state's economy was used to estimate regional economic contributions. A county-level or national-level analysis is also an option for an economic contribution analysis. In general, a county-level model provides a smaller window of businesses and communities that may be linked to spending on monument visits, while a national model will inflate the contributions results since all linkages across the entire United States will be included as an effect of visitor spending in a local monument region. The IMPLAN data was used from 2013 and inflated accordingly to match the study year.

How the 2017 and 2018 results were calculated

The 2017 and 2018 economic contributions are calculated by inflating the economic multipliers and spending profiles to match the dollar values in each year. Since the spending profiles and visitor characteristics will not change over time unless new survey data is produced, the main consideration for estimating economic contributions in the future is inflation. Inflation projections were provided by IMPLAN and are generated by projecting previous rates of inflation into future years. When a newer version of IMPLAN is purchased, these calculations could be updated. I chose to limit the projections to 5 years past the date of the IMPLAN software to avoid error that may arise by projecting inflation too far into the future.

Prepared by: Egan Cornachione, GeoCorps intern with National Conservation Lands. Contact: 541-331-3999 or eganc31@gmail.com

More details on the methodology (see Economic Report, Appendices for More Details):

Methodology for Estimating Visitor Spending Effects on National Conservation Lands

Economic contribution analysis of the National Conservation Lands visitors requires several different types of data. The four main types of information required are: number of visitors, visitor characteristics, spending patterns of visitors, and regional economic multipliers. Although the Bureau of Land Management conducted two pilot projects of a visitor use monitoring program in 2006 and 2009, there is very little data available on visitor characteristics and spending patterns of visitors (White nd). Units report annual visitation estimates and activity participation to the BLM's Recreation Management Information System (RMIS). Regional economic multipliers were generated for this project using the IMPLAN software and data system (IMPLAN Group LLC).

Due to a lack of primary data on visitor characteristics and spending patterns, several assumptions were made in order to produce the most credible model for estimating economic contributions of National Monument and NCA visitors. The most significant assumption is that National Monument and NCA visitors are likely similar to visitors to National Forests and National Parks. The USFS and NPS both have visitor use monitoring programs in place to track visitor spending habits and group characteristics. The USFS National Visitor Use Monitoring (NVUM) program surveys each individual forest unit every five years. Since 2003, the NPS has surveyed its visitors about their spending patterns as part of its Visitor Services Program (VSP), generating profiles for 57 individual parks. The USFS NVUM estimations of visitor spending and visitor characteristics are used annually by the BLM to produce the recreation economic contributions component of the brochure, "BLM: A Sound Investment for America" (BLM 2016). The NPS estimates are used to

Units	LocalDay	NLDay	LodgeIN	CampIN	LodgeOut	CampOut	Other	Total
Steele NCA	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Sonoran Desert	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Las Cienegas NCA	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Vermilion Cliffs	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Ironwood Forest	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Agua Fria	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Grand Canyon-Parashant	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Gila Box Riparian NCA	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
San Pedro Riparian NCA	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Mojave Trails	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Sand to Snow	0.0	0.0	0.0	0.0	15.3	0.0	0.0	15.3
Berryessa Snow Mountain	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Fort Ord	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Piedras Blancas Historic Light Station ONA	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Carrizo Plain	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Santa Rosa and San Jacinto Mountains	0.0	0.0	0.0	0.0	15.3	0.0	0.0	15.3
California Coastal	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Headwaters Forest Reserve	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
King Range NCA	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Browns Canyon	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Dominguez-Escalante NCA	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
McInnis Canyons NCA	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Canyons of the Ancients	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Gunnison Gorge NCA	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Jupiter Inlet Lighthouse ONA	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Craters of the Moon	0.0	0.0	0.0	0.0	7.4	0.0	0.0	7.4
Morley Nelson Snake River Birds of Prey NCA	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Pompeys Pillar	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Upper Missouri River Breaks	0.0	0.0	0.0	0.0	10.7	0.0	0.0	10.7
Organ Mountains-Desert Peaks	0.0	0.0	0.0	0.0	14.7	0.0	0.0	14.7
Rio Grande del Norte	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Prehistoric Trackways	0.0	0.0	0.0	0.0	14.7	0.0	0.0	14.7
Fort Stanton-Snowy River Cave NCA	0.0	0.0	0.0	0.0	14.7	0.0	0.0	14.7
Kasha-Katuwe Tent Rocks	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
El Malpais NCA	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Basin and Range	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Sloan Canyon NCA	0.0	0.0	0.0	0.0	10.7	0.0	0.0	10.7
Black Rock Desert-High Rock Canyon Emigrant Trails NCA	0.0	0.0	0.0	0.3	8.7	0.0	0.0	9.0
Red Rock Canyon NCA	0.0	0.0	0.0	0.0	10.7	0.0	0.0	10.7
Steens Mountain CMPA	0.0	0.0	0.0	0.0	13.5	0.3	0.0	13.8
Cascade-Siskiyou	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Yaquina Head ONA	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9
Red Cliffs NCA	0.0	0.0	0.0	0.0	19.0	0.0	0.0	19.0
Beaver Dam Wash NCA	0.0	0.0	0.0	0.0	10.7	0.0	0.0	10.7
Grand Staircase-Escalante	0.0	0.0	0.0	0.3	22.5	0.0	0.0	22.7
San Juan Islands	0.0	0.0	0.0	0.0	16.9	0.0	0.0	16.9

Units	LocalDay	NLDay	LodgeIN	CampIN	LodgeOut	CampOut	Other	All
Steese NCA	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Sonoran Desert	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Las Cienegas NCA	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Vermilion Cliffs	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Ironwood Forest	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Agua Fria	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Grand Canyon-Parashant	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Gila Box Riparian NCA	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
San Pedro Riparian NCA	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Mojave Trails	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Sand to Snow	0.4	8.8	0.0	4.2	28.9	0.0	1.1	43.4
Berryessa Snow Mountain	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Fort Ord	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Piedras Blancas Historic Light Station ONA	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Carrizo Plain	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Santa Rosa and San Jacinto Mountains	0.4	8.8	0.0	4.2	28.9	0.0	1.1	43.4
California Coastal	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Headwaters Forest Reserve	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
King Range NCA	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Browns Canyon	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Dominguez-Escalante NCA	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
McInnis Canyons NCA	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Canyons of the Ancients	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Gunnison Gorge NCA	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Jupiter Inlet Lighthouse ONA	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Craters of the Moon	0.4	6.8	0.0	0.9	17.7	3.1	2.3	31.2
Morley Nelson Snake River Birds of Prey NCA	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Pompeys Pillar	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Upper Missouri River Breaks	4.4	5.6	0.0	1.8	20.5	3.8	3.9	40.2
Organ Mountains-Desert Peaks	0.7	11.8	0.0	0.0	31.8	1.7	2.8	48.8
Rio Grande del Norte	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Prehistoric Trackways	0.7	11.8	0.0	0.0	31.8	1.7	2.8	48.8
Fort Stanton-Snowy River Cave NCA	0.7	11.8	0.0	0.0	31.8	1.7	2.8	48.8
Kasha-Katuwe Tent Rocks	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
El Malpais NCA	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Basin and Range	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Sloan Canyon NCA	4.4	5.6	0.0	1.8	20.5	3.8	3.9	40.2
Black Rock Desert-High Rock Canyon Emigrant Trails NCA	1.3	8.4	0.0	2.7	18.5	0.0	6.8	37.7
Red Rock Canyon NCA	4.4	5.6	0.0	1.8	20.5	3.8	3.9	40.2
Steens Mountain CMPA	0.6	3.5	0.0	0.0	26.2	9.7	2.5	42.5
Cascade-Siskiyou	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Yaquina Head ONA	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2
Red Cliffs NCA	0.7	7.1	0.0	1.8	41.1	3.6	3.2	57.5
Beaver Dam Wash NCA	4.4	5.6	0.0	1.8	20.5	3.8	3.9	40.2
Grand Staircase-Escalante	0.2	2.9	0.0	2.7	49.9	5.2	2.5	63.4
San Juan Islands	2.4	7.1	0.0	0.0	36.0	4.9	3.8	54.2

Units	LocalDay	NLDay	LodgeIN	CampIN	LodgeOut	CampOut	Other	All	2013	2014	2015	Sort
Steese NCA	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	30764	9204	7115	1
Sonoran Desert	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	30764	9204	7115	1
Las Cienegas NCA	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	30764	9204	7115	1
Vermilion Cliffs	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	30764	9204	7115	1
Ironwood Forest	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	26835	26560	29894	2
Agua Fria	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	26835	26560	29894	2
Grand Canyon-Parashant	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	26835	26560	29894	2
Gila Box Riparian NCA	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	23117	25240	25499	3
San Pedro Riparian NCA	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	23117	25240	25499	3
Mojave Trails	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	23117	25240	25499	3
Sand to Snow	4.7	20.5	0.0	27.9	120.5	0.0	11.2	184.9	119555	168917	160568	4
Berryessa Snow Mountain	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	119555	168917	160568	4
Fort Ord	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	119555	168917	160568	4
Piedras Blancas Historic Light Station ONA	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	119555	168917	160568	4
Carrizo Plain	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	119555	168917	160568	4
Santa Rosa and San Jacinto Mountains	4.7	20.5	0.0	27.9	120.5	0.0	11.2	184.9	119555	168917	160568	4
California Coastal	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	137859	140001	144741	9
Headwaters Forest Reserve	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	137859	140001	144741	9
King Range NCA	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	137859	140001	144741	9
Browns Canyon	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	137859	140001	144741	9
Dominguez-Escalante NCA	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	48986	98705	92567	21
									48986	98705	92567	21
									48986	98705	92567	21

McInnis Canyons NCA	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	48986	98705	92567	21
									261133	295491	283063	22
									261133	295491	283063	22
									261133	295491	283063	22
Canyons of the Ancients	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	67000	76252	68497	23
									67000	76252	68497	23
									67000	76252	68497	23
Gunnison Gorge NCA	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	198202	172688	182575	24
									198202	172688	182575	24
									198202	172688	182575	24
Jupiter Inlet Lighthouse ONA	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	77300	70020	67931	25
									77300	70020	67931	25
									77300	70020	67931	25
Craters of the Moon	8.6	13.1	0.0	21.7	98.6	51.2	15.6	208.8	3276	3715	3654	26
									3276	3715	3654	26
									3276	3715	3654	26
Morley Nelson Snake River Birds of Prey NCA	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	195247	196270	197235	27
									195247	196270	197235	27
									195247	196270	197235	27
Pompeys Pillar	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	32000	44000	32000	28
									32000	44000	32000	28
									32000	44000	32000	28
Upper Missouri River Breaks	14.8	21.3	0.0	31.8	125.9	60.8	25.3	279.8	17746	56106	24699	29
									17746	56106	24699	29
									17746	56106	24699	29
Organ Mountains-Desert Peaks	8.8	25.9	0.0	0.0	114.7	37.2	19.9	206.5	-	-	-	30
									-	-	-	30
Rio Grande del Norte	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	-	-	-	31
									-	-	-	31
Prehistoric Trackways	8.8	25.9	0.0	0.0	114.7	37.2	19.9	206.5	-	-	-	32
									-	-	-	32
Fort Stanton-Snowy River Cave NCA	8.8	25.9	0.0	0.0	114.7	37.2	19.9	206.5	32647	5082	25778	33
									32647	5082	25778	33
									32647	5082	25778	33
Kasha-Katuwe Tent Rocks	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	222946	222946	366400	34
									222946	222946	366400	34
									222946	222946	366400	34
EI Malpais NCA	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	115642	171411	173043	35
									115642	171411	173043	35
									115642	171411	173043	35
Basin and Range	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	-	-	-	36
									-	-	-	36
Sloan Canyon NCA	14.8	21.3	0.0	31.8	125.9	60.8	25.3	279.8	55684	85362	136125	37
									55684	85362	136125	37
Black Rock Desert-High Rock Canyon Emigrant Trails NCA	9.0	20.9	0.0	33.8	80.2	0.0	48.7	192.7	154977	116857	128723	38
									154977	116857	128723	38
									154977	116857	128723	38
Red Rock Canyon NCA	14.8	21.3	0.0	31.8	125.9	60.8	25.3	279.8	1019209	2705707	1753250	39
									1019209	2705707	1753250	39
									1019209	2705707	1753250	39
Steens Mountain CMPA	10.4	9.8	0.0	0.0	107.0	52.9	15.6	195.7	190784	221939	248146	40
									190784	221939	248146	40
									190784	221939	248146	40
Cascade-Siskiyou	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	162354	130332	121058	41
									162354	130332	121058	41
									162354	130332	121058	41
Yaquina Head ONA	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	327901	308709	313000	42
									327901	308709	313000	42
									327901	308709	313000	42

Red Cliffs NCA	12.3	20.4	0.0	31.0	121.4	67.9	22.5	275.6	327901	308709	313000	42
	139391	130276	130031	43								
	139391	130276	130031	43								
	139391	130276	130031	43								
Beaver Dam Wash NCA	14.8	21.3	0.0	31.8	125.9	60.8	25.3	279.8	10544	12009	10145	44
	10544	12009	10145	44								
	10544	12009	10145	44								
	10544	12009	10145	44								
Grand Staircase-Escalante	12.0	14.3	0.0	48.8	118.8	51.8	12.4	258.1	788817	797283	917320	45
	788817	797283	917320	45								
	788817	797283	917320	45								
San Juan Islands	15.0	17.9	0.0	0.0	142.2	80.8	29.7	285.7	-	-	-	46
												46
												46
												46

Enter 2017 and 2018 Visitation Data Here to Get Updated Economic Contributions Results in Next Tab

Unit (listed four times to simplify calculations)	State	2014	2015	2016	2017	2018
Steeese NCA	Alaska	7,115	18,693	22,568		
Sonoran Desert	Arizona	29,894	40,310	51,278		
Las Cienegas NCA	Arizona	25,499	26,735	28,282		
Vermilion Cliffs	Arizona	160,568	188,881	275,845		
Ironwood Forest	Arizona	47,435	58,020	23,600		
Agua Fria	Arizona	79,500	162,431	78,775		
Grand Canyon-Parashant	Arizona	31,188	11,890	30,350		
Gila Box Riparian NCA	Arizona	35,523	33,255	25,073		
San Pedro Riparian NCA	Arizona	144,741	128,365	50,093		
Mojave Trails	California	175,558	165,863	163,283		
Sand to Snow	California			0		
Berryessa Snow Mountain	California	132,900	107,200	107,260		
Fort Ord	California	499,112	144,187	467,848		
Piedras Blancas Historic Light Station ONA	California	6,106	6,426	6,610		
Carrizo Plain	California	54,253	45,627	53,630		
Santa Rosa and San Jacinto Mountains	California	230,173	232,713	136,090		
California Coastal	California	15,000	15,000	43,420		
Headwaters Forest Reserve	California	33,810	36,953	38,565		
King Range NCA	California	104,189	124,119	118,907		
Browns Canyon	Colorado	85,946	86,156	115,059		
Dominguez-Escalante NCA	Colorado	92,567	100,263	92,902		
McInnis Canyons NCA	Colorado	283,063	286,905	244,298		
Canyons of the Ancients	Colorado	68,497	72,193	89,579		
Gunnison Gorge NCA	Colorado	182,575	202,301	206,036		
Jupiter Inlet Lighthouse ONA	Florida	67,931	88,603	107,463		
Craters of the Moon	Idaho	3,654	3,662	3,654		
Morley Nelson Snake River Birds of Prey NCA	Idaho	197,235	218,136	151,665		
Pompeys Pillar	Montana	32,000	74,279	28,672		
Upper Missouri River Breaks	Montana	24,699	25,025	46,342		
Organ Mountains-Desert Peaks	New Mexico	190,934	210,883	394,551		
Rio Grande del Norte	New Mexico	122,431	207,784	176,954		
Prehistoric Trackways	New Mexico	780	1,825	25,000		
Fort Stanton-Snowy River Cave NCA	New Mexico	25,778	25,777	36,656		
Kasha-Katuwe Tent Rocks	New Mexico	366,400	400,001	527,746		
El Malpais NCA	New Mexico	173,043	176,437	188,890		
Basin and Range	Nevada	340	0	120		
Sloan Canyon NCA	Nevada	136,125	76,156	69,232		
Black Rock Desert-High Rock Canyon Emigrant Trails NCA	Nevada	128,723	131,300	170,825		
Red Rock Canyon NCA	Nevada	1,753,250	2,420,710	2,221,084		
Steens Mountain CMPA	Oregon	248,146	266,798	238,717		
Cascade-Siskiyou	Oregon	121,058	126,948	198,213		
Yaquina Head ONA	Oregon	313,000	386,277	423,643		
Red Cliffs NCA	Utah	130,031	125,727	150,982		
Beaver Dam Wash NCA	Utah	10,145	9,723	9,715		
Grand Staircase-Escalante	Utah	917,320	912,055	926,236		
San Juan Islands	Washington	100,970	108,020	105,372		
Total	All	7,589,205	8,290,612	8,671,083	0	0

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Sector	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
GDP	0.936917	0.948357	0.967939	0.985319	1	1.019119	1.038604	1.058462	1.078699	1.099323	1.120342	1.141762	1.163592	1.185839
1	0.679859	0.737824	0.875978	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
2	0.545203	0.678968	0.873676	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
3	1.146143	1.086624	1.160126	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
4	0.813015	0.790722	0.919495	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
5	0.813015	0.790722	0.919495	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
6	0.944042	0.880121	0.979802	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
7	0.81795	0.794638	1.022494	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
8	0.81795	0.794638	1.022494	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
9	0.81795	0.794638	1.022494	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
10	0.81795	0.794638	1.022494	0.993179	1	1.006868	1.013783	1.020745	1.027756	1.034814	1.041921	1.049077	1.056281	1.063536
11	0.690489	0.72047	0.934846	1.006525	1	0.993517	0.987076	0.980677	0.974319	0.968002	0.961727	0.955492	0.949297	0.943143
12	0.709911	0.829055	1.09251	1.006525	1	0.993517	0.987076	0.980677	0.974319	0.968002	0.961727	0.955492	0.949297	0.943143
13	0.867994	0.863185	0.930003	1.006525	1	0.993517	0.987076	0.980677	0.974319	0.968002	0.961727	0.955492	0.949297	0.943143
14	0.685471	0.817788	1.053124	1.006525	1	0.993517	0.987076	0.980677	0.974319	0.968002	0.961727	0.955492	0.949297	0.943143
15	0.791577	0.89673	0.957729	0.973362	1	1.027366	1.055482	1.084367	1.114042	1.144529	1.175851	1.20803	1.24109	1.275054
16	0.81133	0.919107	0.981628	0.997651	1	1.002354	1.004714	1.007079	1.00945	1.011826	1.014208	1.016595	1.018988	1.021387
17	0.889626	0.942007	0.992476	0.99196	1	1.008105	1.016276	1.024514	1.032818	1.041189	1.049628	1.058136	1.066713	1.075359
18	0.889626	0.942007	0.992476	0.99196	1	1.008105	1.016276	1.024514	1.032818	1.041189	1.049628	1.058136	1.066713	1.075359
19	0.933228	0.950848	0.977015	0.979162	1	1.021282	1.043016	1.065213	1.087882	1.111034	1.134679	1.158827	1.183488	1.208675
20	0.741628	0.94579	1.073261	0.951924	1	1.050505	1.10356	1.159294	1.217844	1.279351	1.343964	1.41184	1.483144	1.55805
21	0.741628	0.94579	1.073261	0.951924	1	1.050505	1.10356	1.159294	1.217844	1.279351	1.343964	1.41184	1.483144	1.55805
22	0.886479	0.963017	0.965561	0.989762	1	1.010344	1.020794	1.031353	1.042021	1.0528	1.063689	1.074692	1.085808	1.097039
23	0.683272	0.81856	0.958987	0.992918	1	1.007133	1.014316	1.021551	1.028838	1.036176	1.043567	1.05101	1.058507	1.066057
24	0.683272	0.81856	0.958987	0.992918	1	1.007133	1.014316	1.021551	1.028838	1.036176	1.043567	1.05101	1.058507	1.066057
25	0.683272	0.81856	0.958987	0.992918	1	1.007133	1.014316	1.021551	1.028838	1.036176	1.043567	1.05101	1.058507	1.066057
26	0.684799	0.938106	1.078963	0.992918	1	1.007133	1.014316	1.021551	1.028838	1.036176	1.043567	1.05101	1.058507	1.066057
27	0.684799	0.938106	1.078963	0.992918	1	1.007133	1.014316	1.021551	1.028838	1.036176	1.043567	1.05101	1.058507	1.066057
28	0.683272	0.81856	0.958987	0.992918	1	1.007133	1.014316	1.021551	1.028838	1.036176	1.043567	1.05101	1.058507	1.066057
29	0.683272	0.81856	0.958987	0.992918	1	1.007133	1.014316	1.021551	1.028838	1.036176	1.043567	1.05101	1.058507	1.066057
30	0.935589	0.925382	0.943251	0.956471	1	1.04551	1.093091	1.142837	1.194847	1.249224	1.306076	1.365515	1.42766	1.492632
31	0.934784	0.871275	0.950881	0.956471	1	1.04551	1.093091	1.142837	1.194847	1.249224	1.306076	1.365515	1.42766	1.492632
32	0.934784	0.871275	0.950881	0.956471	1	1.04551	1.093091	1.142837	1.194847	1.249224	1.306076	1.365515	1.42766	1.492632
33	0.934784	0.871275	0.950881	0.956471	1	1.04551	1.093091	1.142837	1.194847	1.249224	1.306076	1.365515	1.42766	1.492632
34	0.934784	0.871275	0.950881	0.956471	1	1.04551	1.093091	1.142837	1.194847	1.249224	1.306076	1.365515	1.42766	1.492632
35	0.934784	0.871275	0.950881	0.956471	1	1.04551	1.093091	1.142837	1.194847	1.249224	1.306076	1.365515	1.42766	1.492632
36	0.934784	0.871275	0.950881	0.956471	1	1.04551	1.093091	1.142837	1.194847	1.249224	1.306076	1.365515	1.42766	1.492632
37	0.938541	0.928396	0.959687	0.963159	1	1.03825	1.077963	1.119195	1.162004	1.206451	1.252597	1.300509	1.350253	1.4019
38	0.888679	0.885391	0.940862	0.963159	1	1.03825								

67	0.823904	0.800382	0.95909	0.986428		1	1.013759	1.027708	1.041848	1.056183	1.070715	1.085447	1.100382	1.115523	1.130871
68	0.823904	0.800382	0.95909	0.986428		1	1.013759	1.027708	1.041848	1.056183	1.070715	1.085447	1.100382	1.115523	1.130871
69	0.823904	0.800382	0.95909	0.986428		1	1.013759	1.027708	1.041848	1.056183	1.070715	1.085447	1.100382	1.115523	1.130871
70	0.827818	0.792453	0.972735	0.986428		1	1.013759	1.027708	1.041848	1.056183	1.070715	1.085447	1.100382	1.115523	1.130871
71	0.744558	0.735854	0.904392	0.986428		1	1.013759	1.027708	1.041848	1.056183	1.070715	1.085447	1.100382	1.115523	1.130871
72	0.754098	0.769813	0.987808	0.986428		1	1.013759	1.027708	1.041848	1.056183	1.070715	1.085447	1.100382	1.115523	1.130871
73	0.912058	0.923003	0.955463	0.986428		1	1.013759	1.027708	1.041848	1.056183	1.070715	1.085447	1.100382	1.115523	1.130871
74	0.859334	0.909279	0.979151	0.988071		1	1.012073	1.024291	1.036658	1.049173	1.061839	1.074659	1.087633	1.100764	1.114053
75	0.859334	0.909279	0.979151	0.988071		1	1.012073	1.024291	1.036658	1.049173	1.061839	1.074659	1.087633	1.100764	1.114053
76	0.859334	0.909279	0.979151	0.988071		1	1.012073	1.024291	1.036658	1.049173	1.061839	1.074659	1.087633	1.100764	1.114053
77	0.859334	0.909279	0.979151	0.988071		1	1.012073	1.024291	1.036658	1.049173	1.061839	1.074659	1.087633	1.100764	1.114053
78	0.859334	0.909279	0.979151	0.988071		1	1.012073	1.024291	1.036658	1.049173	1.061839	1.074659	1.087633	1.100764	1.114053
79	0.911479	0.923082	0.954301	0.984252		1	1.016	1.032256	1.048773	1.065553	1.082602	1.099924	1.117523	1.135404	1.153571
80	0.911479	0.923082	0.954301	0.984252		1	1.016	1.032256	1.048773	1.065553	1.082602	1.099924	1.117523	1.135404	1.153571
81	0.927647	0.916162	0.942498	0.984252		1	1.016	1.032256	1.048773	1.065553	1.082602	1.099924	1.117523	1.135404	1.153571
82	0.927647	0.916162	0.942498	0.984252		1	1.016	1.032256	1.048773	1.065553	1.082602	1.099924	1.117523	1.135404	1.153571
83	0.927647	0.916162	0.942498	0.984252		1	1.016	1.032256	1.048773	1.065553	1.082602	1.099924	1.117523	1.135404	1.153571
84	0.825741	0.915822	1.006281	0.986323		1	1.013866	1.027925	1.042179	1.05663	1.071281	1.086136	1.101197	1.116466	1.131948
85	0.825741	0.915822	1.006281	0.986323		1	1.013866	1.027925	1.042179	1.05663	1.071281	1.086136	1.101197	1.116466	1.131948
86	0.787811	0.869656	0.995556	0.986323		1	1.013866	1.027925	1.042179	1.05663	1.071281	1.086136	1.101197	1.116466	1.131948
87	0.780122	0.87532	0.986776	0.986323		1	1.013866	1.027925	1.042179	1.05663	1.071281	1.086136	1.101197	1.116466	1.131948
88	0.87303	0.881263	0.950835	0.986323		1	1.013866	1.027925	1.042179	1.05663	1.071281	1.086136	1.101197	1.116466	1.131948
89	0.722321	0.817321	0.946284	0.988142		1	1.012	1.024144	1.036433	1.04887	1.061456	1.074194	1.087084	1.100129	1.11333
90	0.722321	0.817321	0.946284	0.988142		1	1.012	1.024144	1.036433	1.04887	1.061456	1.074194	1.087084	1.100129	1.11333
91	0.722321	0.817321	0.946284	0.988142		1	1.012	1.024144	1.036433	1.04887	1.061456	1.074194	1.087084	1.100129	1.11333
92	0.885623	0.899279	0.889998	0.988142		1	1.012	1.024144	1.036433	1.04887	1.061456	1.074194	1.087084	1.100129	1.11333
93	0.872355	0.906516	0.98727	0.980893		1	1.019479	1.039338	1.059583	1.080223	1.101265	1.122716	1.144586	1.166881	1.189611
94	0.91301	0.926185	0.955474	0.980134		1	1.020268	1.040948	1.062046	1.083572	1.105534	1.127941	1.150803	1.174128	1.197925
95	0.91301	0.926185	0.955474	0.980134		1	1.020268	1.040948	1.062046	1.083572	1.105534	1.127941	1.150803	1.174128	1.197925
96	0.914373	0.912745	0.951286	0.980134		1	1.020268	1.040948	1.062046	1.083572	1.105534	1.127941	1.150803	1.174128	1.197925
97	0.914373	0.912745	0.951286	0.980134		1	1.020268	1.040948	1.062046	1.083572	1.105534	1.127941	1.150803	1.174128	1.197925
98	0.914373	0.912745	0.951286	0.980134		1	1.020268	1.040948	1.062046	1.083572	1.105534	1.127941	1.150803	1.174128	1.197925
99	0.865811	0.904123	0.939388	0.993934		1	1.006103	1.012243	1.018421	1.024636	1.03089	1.037181	1.043511	1.04988	1.056287
100	0.865811	0.904123	0.939388	0.993934		1	1.006103	1.012243	1.018421	1.024636	1.03089	1.037181	1.043511	1.04988	1.056287
101	0.84547	0.885824	1.022925	0.993934		1	1.006103	1.012243	1.018421	1.024636	1.03089	1.037181	1.043511	1.04988	1.056287
102	0.978763	0.958787	0.971961	0.993934		1	1.006103	1.012243	1.018421	1.024636	1.03089	1.037181	1.043511	1.04988	1.056287
103	0.919381	0.917809	0.953159	0.993934		1	1.006103	1.012243	1.018421	1.024636	1.03089	1.037181	1.043511	1.04988	1.056287
104	0.919381	0.917809	0.953159	0.993934		1	1.006103	1.012243	1.018421	1.024636	1.03089	1.037181	1.043511	1.04988	1.056287
105	0.903494	0.920805	0.966197	0.993934		1	1.006103	1.012243	1.018421	1.024636	1.03089	1.037181	1.043511	1.04988	1.056287
106	0.831716</														

136	0.855508	0.914264	0.892936	0.980138		1	1.020264	1.040939	1.062033	1.083554	1.105511	1.127914	1.15077	1.174089	1.197881
137	0.855508	0.914264	0.892936	0.980138		1	1.020264	1.040939	1.062033	1.083554	1.105511	1.127914	1.15077	1.174089	1.197881
138	0.855508	0.914264	0.892936	0.980138		1	1.020264	1.040939	1.062033	1.083554	1.105511	1.127914	1.15077	1.174089	1.197881
139	0.924398	0.961273	0.966357	0.980084		1	1.02032	1.041054	1.062209	1.083793	1.105816	1.128287	1.151214	1.174607	1.198476
140	0.924398	0.961273	0.966357	0.980084		1	1.02032	1.041054	1.062209	1.083793	1.105816	1.128287	1.151214	1.174607	1.198476
141	0.924398	0.961273	0.966357	0.980084		1	1.02032	1.041054	1.062209	1.083793	1.105816	1.128287	1.151214	1.174607	1.198476
142	0.939201	0.942836	0.9559	0.980084		1	1.02032	1.041054	1.062209	1.083793	1.105816	1.128287	1.151214	1.174607	1.198476
143	0.939201	0.942836	0.9559	0.980084		1	1.02032	1.041054	1.062209	1.083793	1.105816	1.128287	1.151214	1.174607	1.198476
144	0.939201	0.942836	0.9559	0.980084		1	1.02032	1.041054	1.062209	1.083793	1.105816	1.128287	1.151214	1.174607	1.198476
145	0.939201	0.942836	0.9559	0.980084		1	1.02032	1.041054	1.062209	1.083793	1.105816	1.128287	1.151214	1.174607	1.198476
146	0.805575	0.934516	0.997979	0.980812		1	1.019563	1.039509	1.059845	1.080579	1.101719	1.123272	1.145247	1.167651	1.190494
147	0.935845	0.949443	0.977715	0.980812		1	1.019563	1.039509	1.059845	1.080579	1.101719	1.123272	1.145247	1.167651	1.190494
148	0.882343	0.959768	0.990139	0.980812		1	1.019563	1.039509	1.059845	1.080579	1.101719	1.123272	1.145247	1.167651	1.190494
149	0.896548	0.939779	0.977058	0.980689		1	1.019692	1.039771	1.060246	1.081124	1.102413	1.124122	1.146258	1.168829	1.191846
150	0.904728	0.926224	0.972094	0.980689		1	1.019692	1.039771	1.060246	1.081124	1.102413	1.124122	1.146258	1.168829	1.191846
151	0.939069	0.945295	0.963504	0.980689		1	1.019692	1.039771	1.060246	1.081124	1.102413	1.124122	1.146258	1.168829	1.191846
152	0.954571	0.95586	0.96827	0.980689		1	1.019692	1.039771	1.060246	1.081124	1.102413	1.124122	1.146258	1.168829	1.191846
153	0.911692	0.933016	0.974489	0.980689		1	1.019692	1.039771	1.060246	1.081124	1.102413	1.124122	1.146258	1.168829	1.191846
154	0.963814	0.965376	0.980238	0.981828		1	1.018508	1.037359	1.056559	1.076114	1.096031	1.116316	1.136978	1.158021	1.179454
155	0.997499	0.994496	0.984811	0.981828		1	1.018508	1.037359	1.056559	1.076114	1.096031	1.116316	1.136978	1.158021	1.179454
156	0.571349	0.748136	0.989502	1.002809		1	0.997199	0.994405	0.99162	0.988842	0.986072	0.983309	0.980555	0.977808	0.975069
157	0.85637	0.890128	0.941296	1.002809		1	0.997199	0.994405	0.99162	0.988842	0.986072	0.983309	0.980555	0.977808	0.975069
158	0.946261	0.952184	1.000462	1.002809		1	0.997199	0.994405	0.99162	0.988842	0.986072	0.983309	0.980555	0.977808	0.975069
159	0.732357	0.800591	0.965803	1.002809		1	0.997199	0.994405	0.99162	0.988842	0.986072	0.983309	0.980555	0.977808	0.975069
160	0.732357	0.800591	0.965803	1.002809		1	0.997199	0.994405	0.99162	0.988842	0.986072	0.983309	0.980555	0.977808	0.975069
161	0.625893	0.971385	1.240707	0.977363		1	1.023162	1.04686	1.071107	1.095916	1.121299	1.147271	1.173844	1.201032	1.22885
162	0.906073	0.915922	0.963681	0.977363		1	1.023162	1.04686	1.071107	1.095916	1.121299	1.147271	1.173844	1.201032	1.22885
163	0.718427	0.742193	0.877278	0.977363		1	1.023162	1.04686	1.071107	1.095916	1.121299	1.147271	1.173844	1.201032	1.22885
164	0.882399	0.854868	0.957006	0.977363		1	1.023162	1.04686	1.071107	1.095916	1.121299	1.147271	1.173844	1.201032	1.22885
165	0.812667	0.83348	0.997955	0.977363		1	1.023162	1.04686	1.071107	1.095916	1.121299	1.147271	1.173844	1.201032	1.22885
166	0.794554	0.880652	0.966448	0.973687		1	1.027024	1.054779	1.083284	1.112559	1.142625	1.173504	1.205217	1.237788	1.271238
167	0.74842	0.823861	0.965312	0.973687		1	1.027024	1.054779	1.083284	1.112559	1.142625	1.173504	1.205217	1.237788	1.271238
168	0.74842	0.823861	0.965312	0.973687		1	1.027024	1.054779	1.083284	1.112559	1.142625	1.173504	1.205217	1.237788	1.271238
169	0.655075	0.728037	0.979671	0.981676		1	1.018666	1.037681	1.05705	1.076782	1.096881	1.117356	1.138212	1.159458	1.181101
170	0.655075	0.728037	0.979671	0.981676		1	1.018666	1.037681	1.05705	1.076782	1.096881	1.117356	1.138212	1.159458	1.181101
171	0.655075	0.728037	0.979671	0.981676		1	1.018666	1.037681	1.05705	1.076782	1.096881	1.117356	1.138212	1.159458	1.181101
172	1.001332	0.935985	0.937277	0.981676		1	1.018666	1.037681	1.05705	1.076782	1.096881	1.117356	1.138212	1.159458	1.181101
173	0.912986	0.952427	0.959502	0.971691		1	1.029134	1.059117	1.089973	1.121729	1.154409	1.188042	1.222654	1.258275	1.294934
174	0.844948	0.88679	0.92412	0.971691		1	1.029134	1.059117	1.089973	1.121729	1.154409	1.188042	1.222654		

205	1.06184	1.002664	0.969216	0.976755		1	1.023798	1.048163	1.073108	1.098646	1.124792	1.15156	1.178965	1.207023	1.235748
206	0.984017	0.960322	0.955461	0.976755		1	1.023798	1.048163	1.073108	1.098646	1.124792	1.15156	1.178965	1.207023	1.235748
207	0.973542	0.957342	0.964693	0.976755		1	1.023798	1.048163	1.073108	1.098646	1.124792	1.15156	1.178965	1.207023	1.235748
208	0.973542	0.957342	0.964693	0.976755		1	1.023798	1.048163	1.073108	1.098646	1.124792	1.15156	1.178965	1.207023	1.235748
209	0.949467	0.954243	0.963747	0.976755		1	1.023798	1.048163	1.073108	1.098646	1.124792	1.15156	1.178965	1.207023	1.235748
210	0.90543	0.89394	0.90064	0.982862		1	1.017437	1.035178	1.053228	1.071593	1.090279	1.10929	1.128633	1.148312	1.168336
211	0.90543	0.89394	0.90064	0.982862		1	1.017437	1.035178	1.053228	1.071593	1.090279	1.10929	1.128633	1.148312	1.168336
212	0.930027	0.927283	0.959648	0.982862		1	1.017437	1.035178	1.053228	1.071593	1.090279	1.10929	1.128633	1.148312	1.168336
213	0.982498	0.979217	0.979826	0.982862		1	1.017437	1.035178	1.053228	1.071593	1.090279	1.10929	1.128633	1.148312	1.168336
214	0.871262	0.899386	0.93949	0.982862		1	1.017437	1.035178	1.053228	1.071593	1.090279	1.10929	1.128633	1.148312	1.168336
215	0.800989	0.817906	0.923477	0.982862		1	1.017437	1.035178	1.053228	1.071593	1.090279	1.10929	1.128633	1.148312	1.168336
216	0.946042	0.944405	0.961008	0.982862		1	1.017437	1.035178	1.053228	1.071593	1.090279	1.10929	1.128633	1.148312	1.168336
217	0.761675	0.905076	1.019876	0.980451		1	1.019938	1.040274	1.061016	1.082171	1.103747	1.125754	1.1482	1.171093	1.194443
218	0.789365	0.867828	0.970232	0.97676		1	1.023792	1.048151	1.073089	1.098621	1.12476	1.15152	1.178918	1.206967	1.235684
219	0.789365	0.867828	0.970232	0.97676		1	1.023792	1.048151	1.073089	1.098621	1.12476	1.15152	1.178918	1.206967	1.235684
220	0.789365	0.867828	0.970232	0.97676		1	1.023792	1.048151	1.073089	1.098621	1.12476	1.15152	1.178918	1.206967	1.235684
221	0.958211	1.014678	1.109599	0.980451		1	1.019939	1.040275	1.061017	1.082173	1.10375	1.125758	1.148204	1.171098	1.194448
222	0.966742	1.039751	1.134724	0.980451		1	1.019939	1.040275	1.061017	1.082173	1.10375	1.125758	1.148204	1.171098	1.194448
223	0.840118	0.949837	1.042183	0.980451		1	1.019939	1.040275	1.061017	1.082173	1.10375	1.125758	1.148204	1.171098	1.194448
224	0.840118	0.949837	1.042183	0.980451		1	1.019939	1.040275	1.061017	1.082173	1.10375	1.125758	1.148204	1.171098	1.194448
225	0.742803	0.935785	1.08507	0.98876		1	1.011368	1.022864	1.034492	1.046251	1.058145	1.070173	1.082338	1.094642	1.107085
226	0.793802	0.970773	1.089295	0.98876		1	1.011368	1.022864	1.034492	1.046251	1.058145	1.070173	1.082338	1.094642	1.107085
227	0.843105	0.931159	1.052238	0.98876		1	1.011368	1.022864	1.034492	1.046251	1.058145	1.070173	1.082338	1.094642	1.107085
228	0.843105	0.931159	1.052238	0.98876		1	1.011368	1.022864	1.034492	1.046251	1.058145	1.070173	1.082338	1.094642	1.107085
229	0.842775	0.888107	0.946545	0.983585		1	1.016689	1.033656	1.050906	1.068444	1.086275	1.104404	1.122835	1.141573	1.160625
230	0.888787	0.947412	0.994988	0.983585		1	1.016689	1.033656	1.050906	1.068444	1.086275	1.104404	1.122835	1.141573	1.160625
231	0.945459	0.946206	0.981046	0.98255		1	1.01776	1.035836	1.054233	1.072956	1.092012	1.111406	1.131145	1.151234	1.171681
232	0.945459	0.946206	0.981046	0.98255		1	1.01776	1.035836	1.054233	1.072956	1.092012	1.111406	1.131145	1.151234	1.171681
233	0.928274	0.983534	1.00766	0.98255		1	1.01776	1.035836	1.054233	1.072956	1.092012	1.111406	1.131145	1.151234	1.171681
234	0.928352	0.934656	0.985808	0.98255		1	1.01776	1.035836	1.054233	1.072956	1.092012	1.111406	1.131145	1.151234	1.171681
235	0.945743	0.955399	0.966739	0.987072		1	1.013097	1.026365	1.039808	1.053426	1.067223	1.0812	1.095361	1.109707	1.12424
236	0.945743	0.955399	0.966739	0.987072		1	1.013097	1.026365	1.039808	1.053426	1.067223	1.0812	1.095361	1.109707	1.12424
237	0.930954	0.906563	0.961406	0.979401		1	1.021032	1.042507	1.064433	1.08682	1.109678	1.133017	1.156847	1.181177	1.20602
238	0.930954	0.906563	0.961406	0.979401		1	1.021032	1.042507	1.064433	1.08682	1.109678	1.133017	1.156847	1.181177	1.20602
239	0.930954	0.906563	0.961406	0.979401		1	1.021032	1.042507	1.064433	1.08682	1.109678	1.133017	1.156847	1.181177	1.20602
240	0.908923	0.917958	0.968176	0.979401		1	1.021032	1.042507	1.064433	1.08682	1.109678	1.133017	1.156847	1.181177	1.20602
241	0.908923	0.917958	0.968176	0.979401		1	1.021032	1.042507	1.064433	1.08682	1.109678	1.133017	1.156847	1.181177	1.20602
242	0.908923	0.917958	0.968176	0.979401		1	1.021032	1.042507	1.064433	1.08682	1.109678	1.133017	1.156847	1.181177	1.20602
243	0.916707	0.923701	0.956574	0.985286		1	1.014934	1.030091	1.045475	1.061088	1.076935	1.093018	1.109341	1.125908	1.142

274	0.973079	0.983188	0.997338	1.012571		1	0.987585	0.975325	0.963216	0.951258	0.939449	0.927786	0.916268	0.904892	0.893658
275	0.935492	0.933902	0.966008	0.984624		1	1.015616	1.031476	1.047583	1.063942	1.080556	1.09743	1.114567	1.131972	1.149649
276	0.925599	0.934161	0.955607	0.984624		1	1.015616	1.031476	1.047583	1.063942	1.080556	1.09743	1.114567	1.131972	1.149649
277	0.931633	0.929611	0.961725	0.984624		1	1.015616	1.031476	1.047583	1.063942	1.080556	1.09743	1.114567	1.131972	1.149649
278	0.971818	0.967279	0.973868	0.982449		1	1.017864	1.036048	1.054556	1.073395	1.09257	1.112088	1.131954	1.152176	1.172759
279	0.945645	0.943451	0.96782	0.982449		1	1.017864	1.036048	1.054556	1.073395	1.09257	1.112088	1.131954	1.152176	1.172759
280	0.932301	0.936487	0.967626	0.982449		1	1.017864	1.036048	1.054556	1.073395	1.09257	1.112088	1.131954	1.152176	1.172759
281	0.923711	0.930269	0.949639	0.982449		1	1.017864	1.036048	1.054556	1.073395	1.09257	1.112088	1.131954	1.152176	1.172759
282	0.932301	0.936487	0.967626	0.982449		1	1.017864	1.036048	1.054556	1.073395	1.09257	1.112088	1.131954	1.152176	1.172759
283	0.984316	0.976038	0.98909	0.982938		1	1.017359	1.035018	1.052985	1.071263	1.089859	1.108777	1.128024	1.147605	1.167526
284	0.901306	0.899756	0.947228	0.982938		1	1.017359	1.035018	1.052985	1.071263	1.089859	1.108777	1.128024	1.147605	1.167526
285	0.921147	0.928056	0.955948	0.982938		1	1.017359	1.035018	1.052985	1.071263	1.089859	1.108777	1.128024	1.147605	1.167526
286	0.956975	0.953415	0.97088	0.982938		1	1.017359	1.035018	1.052985	1.071263	1.089859	1.108777	1.128024	1.147605	1.167526
287	0.97707	0.987212	1.001878	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
288	0.930592	0.94026	0.996077	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
289	0.97707	0.987212	1.001878	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
290	0.960391	0.965837	0.988166	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
291	0.960391	0.965837	0.988166	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
292	0.960391	0.965837	0.988166	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
293	0.960391	0.965837	0.988166	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
294	1.000055	1.002566	1.008346	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
295	0.946392	0.958326	0.995869	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
296	0.950554	0.97678	0.998538	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
297	0.974811	0.98608	1.005332	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
298	0.954601	0.969331	0.995525	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
299	0.954601	0.969331	0.995525	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
300	0.946392	0.958326	0.995869	1.024507		1	0.976079	0.952731	0.929941	0.907696	0.885984	0.86479	0.844104	0.823913	0.804204
301	1.302287	1.196815	1.127676	1.098219		1	0.910565	0.829129	0.754977	0.687456	0.625973	0.56999	0.519013	0.472595	0.430329
302	1.070952	1.002261	0.999488	1.098219		1	0.910565	0.829129	0.754977	0.687456	0.625973	0.56999	0.519013	0.472595	0.430329
303	1.109256	1.100226	1.092783	1.098219		1	0.910565	0.829129	0.754977	0.687456	0.625973	0.56999	0.519013	0.472595	0.430329
304	1.032905	1.024859	1.019694	1.023661		1	0.976886	0.954306	0.932249	0.910701	0.889651	0.869088	0.849	0.829376	0.810206
305	1.024655	1.028876	1.030546	1.023661		1	0.976886	0.954306	0.932249	0.910701	0.889651	0.869088	0.849	0.829376	0.810206
306	0.979402	0.992134	1.009851	1.023661		1	0.976886	0.954306	0.932249	0.910701	0.889651	0.869088	0.849	0.829376	0.810206
307	1.023442	1.017598	1.015705	1.016083		1	0.984171	0.968593	0.953261	0.938172	0.923322	0.908707	0.894324	0.880168	0.866236
308	0.968684	0.976308	0.992369	1.016072		1	0.984182	0.968614	0.953292	0.938213	0.923372	0.908766	0.894391	0.880243	0.866319
309	1.230246	1.190657	1.096924	1.016072		1	0.984182	0.968614	0.953292	0.938213	0.923372	0.908766	0.894391	0.880243	0.866319
310	0.968684	0.976308	0.992369	1.016072		1	0.984182	0.968614	0.953292	0.938213	0.923372	0.908766	0.894391	0.880243	0.866319
311	0.968684	0.976308	0.992369	1.016072		1	0.984182	0.968614	0.953292	0.938213	0.923372	0.908766	0.894391	0.880243	0.866319
312	1.053492	1.037722	1.02253	1.016072		1	0.984182	0.968614	0.953292	0.938213	0.923372	0.908766	0.894		

343	1.003688	0.991062	0.999222	1.010373		1	0.989734	0.979573	0.969517	0.959563	0.949712	0.939962	0.930313	0.920762	0.911309
344	0.957808	0.96684	0.975212	1.010373		1	0.989734	0.979573	0.969517	0.959563	0.949712	0.939962	0.930313	0.920762	0.911309
345	0.933965	0.963628	0.985688	1.010373		1	0.989734	0.979573	0.969517	0.959563	0.949712	0.939962	0.930313	0.920762	0.911309
346	0.97274	0.982118	0.99345	1.006728		1	0.993317	0.986679	0.980085	0.973535	0.967029	0.960566	0.954147	0.94777	0.941436
347	0.913248	0.934043	0.979139	1.006728		1	0.993317	0.986679	0.980085	0.973535	0.967029	0.960566	0.954147	0.94777	0.941436
348	0.988791	0.975581	0.983185	1.006728		1	0.993317	0.986679	0.980085	0.973535	0.967029	0.960566	0.954147	0.94777	0.941436
349	0.966855	0.96146	0.974909	1.006728		1	0.993317	0.986679	0.980085	0.973535	0.967029	0.960566	0.954147	0.94777	0.941436
350	0.904332	0.937484	0.976488	0.99065		1	1.009438	1.018966	1.028583	1.038291	1.048091	1.057983	1.067968	1.078048	1.088223
351	0.966083	0.972758	0.984525	0.99065		1	1.009438	1.018966	1.028583	1.038291	1.048091	1.057983	1.067968	1.078048	1.088223
352	0.962132	0.965779	0.980827	0.99065		1	1.009438	1.018966	1.028583	1.038291	1.048091	1.057983	1.067968	1.078048	1.088223
353	0.959207	0.961548	0.97161	0.99065		1	1.009438	1.018966	1.028583	1.038291	1.048091	1.057983	1.067968	1.078048	1.088223
354	0.985457	0.978746	0.984353	0.99065		1	1.009438	1.018966	1.028583	1.038291	1.048091	1.057983	1.067968	1.078048	1.088223
355	1.000222	0.98908	0.9898	0.99065		1	1.009438	1.018966	1.028583	1.038291	1.048091	1.057983	1.067968	1.078048	1.088223
356	0.944934	0.963445	0.988599	0.99065		1	1.009438	1.018966	1.028583	1.038291	1.048091	1.057983	1.067968	1.078048	1.088223
357	0.936411	0.944689	0.964054	0.982482		1	1.01783	1.035978	1.05445	1.07325	1.092386	1.111864	1.131688	1.151866	1.172404
358	0.905247	0.926837	0.954528	0.982482		1	1.01783	1.035978	1.05445	1.07325	1.092386	1.111864	1.131688	1.151866	1.172404
359	0.95924	0.961772	0.976938	0.982482		1	1.01783	1.035978	1.05445	1.07325	1.092386	1.111864	1.131688	1.151866	1.172404
360	0.928938	0.941693	0.96526	0.982482		1	1.01783	1.035978	1.05445	1.07325	1.092386	1.111864	1.131688	1.151866	1.172404
361	0.903739	0.920323	0.949071	0.982482		1	1.01783	1.035978	1.05445	1.07325	1.092386	1.111864	1.131688	1.151866	1.172404
362	0.939146	0.948247	0.964607	0.98616		1	1.014034	1.028266	1.042696	1.05733	1.072169	1.087216	1.102474	1.117947	1.133636
363	0.945109	0.955392	0.973434	0.980125		1	1.020278	1.040966	1.062074	1.083611	1.105584	1.128002	1.150875	1.174212	1.198022
364	0.928009	0.94256	0.958716	0.980125		1	1.020278	1.040966	1.062074	1.083611	1.105584	1.128002	1.150875	1.174212	1.198022
365	0.954366	0.959357	0.965866	0.984686		1	1.015552	1.031346	1.047386	1.063675	1.080218	1.097018	1.114079	1.131405	1.149001
366	0.949443	0.954722	0.967871	0.984686		1	1.015552	1.031346	1.047386	1.063675	1.080218	1.097018	1.114079	1.131405	1.149001
367	0.962914	0.970416	0.974643	0.984686		1	1.015552	1.031346	1.047386	1.063675	1.080218	1.097018	1.114079	1.131405	1.149001
368	0.954836	0.95582	0.971231	0.990833		1	1.009251	1.018588	1.028012	1.037522	1.047121	1.056808	1.066585	1.076452	1.086411
369	0.956394	0.954156	0.973408	0.990833		1	1.009251	1.018588	1.028012	1.037522	1.047121	1.056808	1.066585	1.076452	1.086411
370	0.936347	0.94955	0.970318	0.990833		1	1.009251	1.018588	1.028012	1.037522	1.047121	1.056808	1.066585	1.076452	1.086411
371	0.961956	0.953567	0.972576	0.990833		1	1.009251	1.018588	1.028012	1.037522	1.047121	1.056808	1.066585	1.076452	1.086411
372	0.937251	0.937804	0.966212	0.990833		1	1.009251	1.018588	1.028012	1.037522	1.047121	1.056808	1.066585	1.076452	1.086411
373	0.938596	0.944978	0.965064	0.982804		1	1.017497	1.0353	1.053415	1.071846	1.090601	1.109683	1.129099	1.148855	1.168956
374	0.938596	0.944978	0.965064	0.982804		1	1.017497	1.0353	1.053415	1.071846	1.090601	1.109683	1.129099	1.148855	1.168956
375	0.938596	0.944978	0.965064	0.982804		1	1.017497	1.0353	1.053415	1.071846	1.090601	1.109683	1.129099	1.148855	1.168956
376	0.932956	0.93846	0.964303	0.982804		1	1.017497	1.0353	1.053415	1.071846	1.090601	1.109683	1.129099	1.148855	1.168956
377	0.980296	0.971071	0.992344	1.042437		1	0.959291	0.920239	0.882777	0.84684	0.812366	0.779295	0.747571	0.717138	0.687944
378	0.980296	0.971071	0.992344	1.042437		1	0.959291	0.920239	0.882777	0.84684	0.812366	0.779295	0.747571	0.717138	0.687944
379	0.974466	0.980147	0.981619	0.983568		1	1.016707	1.033692	1.050962	1.06852	1.086372	1.104521	1.122974	1.141735	1.16081
380	0.960853	0.968694	0.982261	0.983568		1	1.016707	1.033692	1.050962	1.06852	1.086372	1.104521	1.122974	1.141735	1.16081
381	0.822877	0.867575	0.967612	0.983568		1	1.016707	1.033692	1.050962	1.06852	1.086372	1.104521	1.122974	1.1417	

412	0.869836	0.907317	0.952322	0.983462		1	1.016816	1.033914	1.0513	1.068979	1.086954	1.105232	1.123818	1.142715	1.161931
413	0.89095	0.962947	1.003637	1.022543		1	0.977954	0.956394	0.935309	0.91469	0.894524	0.874804	0.855518	0.836657	0.818212
414	0.925603	0.938006	0.964644	0.975261		1	1.025366	1.051376	1.078046	1.105392	1.133432	1.162183	1.191664	1.221892	1.252887
415	0.775934	0.840919	0.925038	0.984537		1	1.015706	1.031659	1.047862	1.06432	1.081037	1.098016	1.115261	1.132778	1.150569
416	1.030054	1.014511	0.996485	0.97541		1	1.02521	1.051055	1.077552	1.104717	1.132567	1.161119	1.190391	1.2204	1.251167
417	0.958666	0.969911	0.974321	0.979344		1	1.021092	1.042628	1.064619	1.087073	1.110001	1.133413	1.157318	1.181728	1.206653
418	0.952456	0.960647	0.972048	0.979344		1	1.021092	1.042628	1.064619	1.087073	1.110001	1.133413	1.157318	1.181728	1.206653
419	0.912061	0.935556	0.952894	0.979344		1	1.021092	1.042628	1.064619	1.087073	1.110001	1.133413	1.157318	1.181728	1.206653
420	0.966166	0.965393	0.973528	0.979344		1	1.021092	1.042628	1.064619	1.087073	1.110001	1.133413	1.157318	1.181728	1.206653
421	0.966166	0.965393	0.973528	0.979344		1	1.021092	1.042628	1.064619	1.087073	1.110001	1.133413	1.157318	1.181728	1.206653
422	1.03231	1.007834	1.011994	1.006317		1	0.993723	0.987485	0.981287	0.975127	0.969006	0.962924	0.956879	0.950873	0.944904
423	0.938177	0.948479	0.964212	0.968593		1	1.032425	1.065902	1.100464	1.136147	1.172987	1.211022	1.25029	1.290831	1.332686
424	1.068403	1.020955	0.997098	0.968593		1	1.032425	1.065902	1.100464	1.136147	1.172987	1.211022	1.25029	1.290831	1.332686
425	0.842732	0.889521	0.924528	0.985112		1	1.015113	1.030454	1.046028	1.061836	1.077884	1.094174	1.11071	1.127496	1.144536
426	0.870956	0.90501	0.935842	0.985112		1	1.015113	1.030454	1.046028	1.061836	1.077884	1.094174	1.11071	1.127496	1.144536
427	0.958458	0.964449	0.976199	0.988573		1	1.011559	1.023252	1.035079	1.047044	1.059147	1.071389	1.083774	1.096301	1.108973
428	1.080301	1.039585	1.007392	0.988573		1	1.011559	1.023252	1.035079	1.047044	1.059147	1.071389	1.083774	1.096301	1.108973
429	0.982941	0.980896	0.983462	0.988573		1	1.011559	1.023252	1.035079	1.047044	1.059147	1.071389	1.083774	1.096301	1.108973
430	0.963908	0.961363	0.965364	0.968853		1	1.032148	1.06533	1.099579	1.134929	1.171415	1.209074	1.247944	1.288063	1.329472
431	0.949828	0.95849	0.960912	0.968853		1	1.032148	1.06533	1.099579	1.134929	1.171415	1.209074	1.247944	1.288063	1.329472
432	0.968378	0.969114	0.969027	0.968853		1	1.032148	1.06533	1.099579	1.134929	1.171415	1.209074	1.247944	1.288063	1.329472
433	0.88117	0.929159	0.926506	0.979923		1	1.020488	1.041397	1.062733	1.084507	1.106726	1.129401	1.152541	1.176155	1.200252
434	0.905007	0.92631	0.938284	0.979923		1	1.020488	1.041397	1.062733	1.084507	1.106726	1.129401	1.152541	1.176155	1.200252
435	0.94412	0.965543	0.996623	0.994357		1	1.005675	1.011382	1.017122	1.022894	1.028699	1.034536	1.040407	1.046311	1.052249
436	0.919756	0.948388	0.982281	0.994357		1	1.005675	1.011382	1.017122	1.022894	1.028699	1.034536	1.040407	1.046311	1.052249
437	0.916579	0.933755	0.953223	0.967687		1	1.033392	1.067899	1.103558	1.140408	1.178488	1.21784	1.258506	1.30053	1.343957
438	0.983131	0.984891	0.985904	0.990259		1	1.009837	1.01977	1.029802	1.039932	1.050161	1.060491	1.070923	1.081458	1.092096
439	0.869866	0.906409	0.912716	0.978887		1	1.021569	1.043602	1.066112	1.089106	1.112597	1.136594	1.161109	1.186152	1.211736
440	0.941888	0.940165	0.949753	0.974054		1	1.026637	1.053984	1.082059	1.110882	1.140473	1.170852	1.202041	1.23406	1.266932
441	0.928205	0.939539	0.958938	0.976157		1	1.024426	1.049448	1.075082	1.101342	1.128243	1.155801	1.184033	1.212954	1.242581
442	1.016503	1.008056	0.996905	0.979075		1	1.021372	1.0432	1.065496	1.088267	1.111526	1.135281	1.159544	1.184326	1.209637
443	0.944493	0.936814	0.953607	0.981838		1	1.018498	1.037338	1.056526	1.076069	1.095974	1.116247	1.136895	1.157925	1.179344
444	0.944493	0.936814	0.953607	0.981838		1	1.018498	1.037338	1.056526	1.076069	1.095974	1.116247	1.136895	1.157925	1.179344
445	0.980761	0.981585	0.992765	0.976131		1	1.024452	1.049502	1.075165	1.101455	1.128388	1.155979	1.184245	1.213203	1.242868
446	0.924672	0.942315	0.965496	0.981909		1	1.018424	1.037187	1.056297	1.075758	1.095577	1.115762	1.136319	1.157255	1.178576
447	0.87519	0.905034	0.940033	0.966663		1	1.034522	1.070235	1.107182	1.145404	1.184945	1.225851	1.26817	1.311949	1.35724
448	0.963421	0.969289	0.958537	0.96215		1	1.039339	1.080226	1.122722	1.166889	1.212794	1.260505	1.310092	1.36163	1.415196
449	0.944712	0.948623	0.963228	0.978561		1	1.021909	1.044298	1.067177	1.090558	1.11445	1.138867	1.163818	1.189316	1.215372
450	0.897339	0.921118	0.955091	0.976798		1	1.023753	1.048071	1.072966	1.098452	1.124544	1.151255			

481	0.934319	0.952398	0.966843	0.976662		1	1.023895	1.048362	1.073412	1.099062	1.125324	1.152214	1.179747	1.207937	1.236801
482	0.919032	0.937027	0.954203	0.972253		1	1.028539	1.057892	1.088082	1.119135	1.151073	1.183923	1.217711	1.252463	1.288206
483	0.925508	0.942214	0.961955	0.974533		1	1.026133	1.052949	1.080465	1.108701	1.137675	1.167406	1.197913	1.229218	1.261341
484	0.935611	0.948607	0.964316	0.974533		1	1.026133	1.052949	1.080465	1.108701	1.137675	1.167406	1.197913	1.229218	1.261341
485	0.948425	0.960925	0.980254	0.987984		1	1.012162	1.024473	1.036933	1.049545	1.06231	1.07523	1.088307	1.101544	1.114941
486	0.932983	0.94819	0.969509	0.992386		1	1.007673	1.015404	1.023195	1.031045	1.038956	1.046928	1.05496	1.063054	1.071211
487	0.89397	0.924963	0.952301	0.974793		1	1.025858	1.052386	1.079599	1.107515	1.136154	1.165533	1.195672	1.22659	1.258308
488	0.958978	0.956053	0.968856	0.980459		1	1.01993	1.040257	1.06099	1.082135	1.103702	1.125699	1.148134	1.171017	1.194355
489	0.934391	0.948902	0.951621	0.978475		1	1.021998	1.044481	1.067458	1.09094	1.114939	1.139466	1.164532	1.19015	1.216332
490	0.934391	0.948902	0.951621	0.978475		1	1.021998	1.044481	1.067458	1.09094	1.114939	1.139466	1.164532	1.19015	1.216332
491	0.934701	0.949217	0.952965	0.97595		1	1.024643	1.049893	1.075765	1.102275	1.129439	1.157271	1.18579	1.215011	1.244952
492	0.93326	0.945896	0.954529	0.974417		1	1.026255	1.0532	1.080851	1.109229	1.138352	1.16824	1.198912	1.23039	1.262694
493	0.962541	0.967152	0.980877	0.990176		1	1.009922	1.019942	1.030062	1.040282	1.050604	1.061027	1.071555	1.082187	1.092924
494	0.947632	0.948598	0.953905	0.973616		1	1.027099	1.054933	1.08352	1.112883	1.143041	1.174016	1.205831	1.238508	1.272071
495	0.909649	0.924467	0.95354	0.973616		1	1.027099	1.054933	1.08352	1.112883	1.143041	1.174016	1.205831	1.238508	1.272071
496	0.953693	0.948448	0.950985	0.973616		1	1.027099	1.054933	1.08352	1.112883	1.143041	1.174016	1.205831	1.238508	1.272071
497	0.953693	0.948448	0.950985	0.973616		1	1.027099	1.054933	1.08352	1.112883	1.143041	1.174016	1.205831	1.238508	1.272071
498	0.953693	0.948448	0.950985	0.973616		1	1.027099	1.054933	1.08352	1.112883	1.143041	1.174016	1.205831	1.238508	1.272071
499	0.925526	0.926239	0.945564	0.970942		1	1.029928	1.060751	1.092497	1.125193	1.158868	1.19355	1.229271	1.26606	1.303951
500	0.925526	0.926239	0.945564	0.970942		1	1.029928	1.060751	1.092497	1.125193	1.158868	1.19355	1.229271	1.26606	1.303951
501	0.924437	0.938044	0.952355	0.978572		1	1.021898	1.044275	1.067142	1.090509	1.114389	1.138791	1.163728	1.189211	1.215251
502	0.928198	0.938037	0.950299	0.978572		1	1.021898	1.044275	1.067142	1.090509	1.114389	1.138791	1.163728	1.189211	1.215251
503	0.91612	0.934305	0.95172	0.978572		1	1.021898	1.044275	1.067142	1.090509	1.114389	1.138791	1.163728	1.189211	1.215251
504	0.931968	0.945546	0.962294	0.977271		1	1.023258	1.047057	1.071409	1.096328	1.121826	1.147918	1.174616	1.201935	1.22989
505	0.931968	0.945546	0.962294	0.977271		1	1.023258	1.047057	1.071409	1.096328	1.121826	1.147918	1.174616	1.201935	1.22989
506	0.914095	0.929644	0.948127	0.968466		1	1.032561	1.066183	1.100899	1.136745	1.173759	1.211978	1.251441	1.29219	1.334265
507	0.910258	0.928391	0.950819	0.970608		1	1.030282	1.06148	1.093624	1.126741	1.16086	1.196013	1.232231	1.269545	1.307989
508	0.863492	0.892074	0.926915	0.974123		1	1.026565	1.053835	1.08183	1.110569	1.140071	1.170357	1.201448	1.233364	1.266128
509	0.942355	0.954323	0.964227	0.980671		1	1.01971	1.039808	1.060303	1.081201	1.102512	1.124242	1.146401	1.168996	1.192037
510	0.909792	0.930526	0.95156	0.969501		1	1.031458	1.063906	1.097374	1.131896	1.167503	1.204231	1.242114	1.281188	1.321492
511	0.926317	0.947132	0.961758	0.97908		1	1.021367	1.04319	1.065479	1.088245	1.111497	1.135246	1.159502	1.184277	1.209581
512	0.883409	0.910318	0.940671	0.977315		1	1.023211	1.046961	1.071263	1.096128	1.121571	1.147604	1.174241	1.201497	1.229385
513	0.916299	0.946491	0.964487	0.978378		1	1.022099	1.044687	1.067774	1.091371	1.11549	1.140142	1.165338	1.191091	1.217414
514	0.919732	0.942311	0.968349	0.992041		1	1.008023	1.01611	1.024262	1.032479	1.040762	1.049112	1.057529	1.066013	1.074565
515	0.914632	0.935568	0.962248	0.975849		1	1.024749	1.050111	1.0761	1.102732	1.130024	1.157991	1.18665	1.216019	1.246114
516	0.914632	0.935568	0.962248	0.975849		1	1.024749	1.050111	1.0761	1.102732	1.130024	1.157991	1.18665	1.216019	1.246114
517	0.944841	0.949074	0.959939	0.978657		1	1.021809	1.044094	1.066864	1.090131	1.113906	1.138199	1.163022	1.188386	1.214304
518	0.924585	0.939581	0.952683	0.976925		1	1.02362	1.047797	1.072546	1.097879	1.12381	1.150354	1.177525	1.205338	1.233807
519	0.921043	0.941914	0.965677	0.975818		1	1.024782	1.050177	1.076202	1.102872	1.130203	1.158211	1.186913		

